

AMENDMENTS TO THE CLAIMS

Kindly amend the Claims, without prejudice, as shown below in the listing of claims. The listing of claims, shown below, will replace all prior versions, and listings, of claims in the instant Application:

Listing of Claims:

1. (Currently Amended) A pipe ~~comprising~~ consisting essentially of:

an ethylene alpha-olefin interpolymer, wherein said ethylene alpha-olefin interpolymer has a density in the range of 0.925 to 0.965 g/cc, a melt index (I₂) in the range of 0.05 to 5 g/10 minutes; and

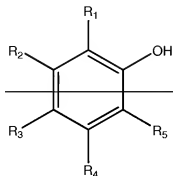
an antioxidant system, wherein said antioxidant system consist essentially of;

from 500 to 5000 ppm of 3,3',3'',5,5',5''-hexa-tert-butyl- α,α' , α'' -(mesitylene-2,4,6-triyl)tri-p-cresol;

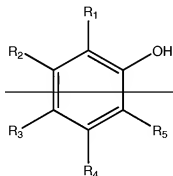
from at least 300 to 5000 ppm of Pentaerythritol Tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate), Octadecyl-3-(3,5-di-tert.butyl-4-hydroxyphenyl)-propionate, or combinations thereof;

optionally one or more metal deactivators;

~~at least one antioxidant from a first class of antioxidants comprising a hindered phenol corresponding to the formula:~~



_____ wherein R_1 and R_2 can independently be CH_3 , $\text{CH}(\text{CH}_3)_2$, or $\text{C}(\text{CH}_3)_3$, and R_3 , R_4 , and R_5 can independently be H, or any hydrocarbon or substituted hydrocarbon group, and wherein said antioxidant from the first class is characterized as being more than five percent soluble in a hexane solution at 20°C ., and further characterized as having a hydrolyzed product that is more than five percent soluble in a hexane solution at 20°C ., and _____ at least one antioxidant from a second class of antioxidants comprising a hindered phenol corresponding to the formula:



_____ wherein R_1 and R_2 can be CH_3 , $\text{CH}(\text{CH}_3)_2$, or $\text{C}(\text{CH}_3)_3$, and R_3 , R_4 , and R_5 can independently be H, or any hydrocarbon or substituted hydrocarbon group, provided that R_3 , R_4 , and R_5 are chosen, such that the antioxidant does not contain the moiety $\text{Ph}-\text{CHR}_6-\text{Ph}$, or R_3 , R_4 , and R_5 are chosen, such that the antioxidant does not contain the moiety $\text{Ph}-\text{CHR}_6$, and wherein Ph represents a substituted or unsubstituted phenyl ring and R_6 can be H or a substituted or unsubstituted phenyl ring,

wherein said pipe has an F time in Jana Laboratories Procedure APTF-2 of at least 1000 hours, under the following conditions: pH 6.8 (± 0.1); Chlorine 4.1 mg/L (± 0.1); Nominal ORP 830mV; fluid temperature 110°C (± 1); air temperature 110°C (± 1); pressure 70 psig (± 1); flow rate 0.1 US gallons/min (± 10 percent).

2. (Cancelled).

3. (Cancelled).

4. (Cancelled).

5. (Cancelled).

6. (Cancelled).

7. (Cancelled).

8. (Previously Presented) The pipe of Claim 1, wherein the ethylene alpha-olefin interpolymer is multimodal.

9. (Previously Presented) The pipe of Claim 1, wherein the ethylene alpha-olefin interpolymer has a density in the range of 0.940 to 0.965 g/cc.

10. (Cancelled).

11. (Cancelled).

12. (Cancelled).

13. (Previously Presented) The pipe of Claim 1, wherein said pipe has an F time in the range of greater than 1200 hours.